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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/209,706	12/11/1998	EDWARD F. TOKAS	IR-2588(ET)	6621

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EXAMINER

KNABLE, GEOFFREY L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 05/20/2003

28

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/209,706

Applicant(s)

TOKAS ET AL.

Examiner

Geoffrey L. Knable

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54,56,57,59-83,93,94,96,98-102,104-142 and 144-172 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54,56,57,59-83,93,94,96,98-102,104-142 and 144-172 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. With respect to applicant's summary of the interview, although generally accurate, it is not believed that the examiner acknowledged "that the three elements of prima facie obviousness were not shown" - for reasons noted below, the rejections have been maintained as the requirements for a prima facie case are still considered to be present.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 54, 56, 57, 59-83, 93, 94, 96, 98-102, 104-142, and 144-172 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO97/38036 to Ciba Specialty Chemicals and/or Brown-Wensley et al. (US 5,491,206) taken in view of Lesser (US 2,978,354), Cole et al. (US 3,485,655), Kriebel (US 2,901,099) and EP 424,833.

These references are applied for substantially the same reasons as set forth in the last office action. New claims 151-172 further define a wide variety of substrates to be coated - it however is again submitted that it is known and obvious to coat a wide variety of substrates with catalyzed metathesis polymers, WO 97/38036 (note esp. pages 33+) and Brown-Wensley et al. (note esp. col. 15, lines 25-31) again being cited as merely being exemplary of this known application of a variety of metathesis polymerizable materials as coatings on a wide variety of substrates. With respect to the dependent claims referring to absence of solvent, it seems known in this art that such polymer systems can be polymerized without solvent if desired - note also for example page 33, lines 6+ of WO '036 which indicates the apparent known optional nature of solvents and page 34, lines 12+ which indicates an apparent known advantage of

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avoiding solvents in terms of preparing bubble free coatings; col. 14, lines 10+ of Brown-Wensley similarly evidences the apparent known optional nature of solvents in this art ("may").

The prior art rejection, then, can be summarized as follows:

(1) Metathesis polymers and catalysts in general as well as the specifically claimed metathesis polymers and catalyst systems are considered to be known and conventional per se;

(2) It is known and conventional to coat a variety of substrates with catalyzed metathesis polymers in general, albeit with the catalyst being premixed with the monomers;

(3) It is well known when forming catalyzed coatings of various thermosetting resin systems (although metathesis systems are not mentioned in particular) on a variety of substrates to provide the catalyst at the substrate surface, rather than mixed with the coating polymer to be applied, for the advantage of avoiding the shortened pot life of polymer/catalyst mixtures as well as avoiding complicated and costly methods of mixing the catalyst during the e.g. spraying of the coating.

(4) EP '833, even though directed to substrates that are intended to contact the monomer in a mold in a RIM process, provides evidence that separate application of a metathesis catalyst to a substrate surface rather than mixing with the monomer would have been expected to suitably successfully catalyze the desired metathesis reaction.

Taken together, it is submitted that the ordinary artisan would have found it obvious to form a coating on a substrate surface using metathesis polymerization where

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the catalyst is pre-applied to the substrate surface rather than premixed with the monomer with an expectation of avoiding pot-life and other complicated mixing requirements, EP '833 providing sufficient evidence of a reasonable expectation of being able to successfully catalyze this particular reaction.

4. Applicant's arguments filed March 4, 2003 have been fully considered but they are not persuasive.

With respect to the primary references, it is first pointed out that both are directed to forming a mixture of catalyst and monomer prior to film formation on a substrate rather than applying catalyst to the substrate surface prior to monomer. This is not disputed. This is however considered an obvious modification of this basic processing in light of the secondary references for the reasons of record in the statement of rejection. The argument that the secondary references to Lesser, Cole et al. and Kriebel are not directed to materials that undergo a metathesis reaction and do not provide a reasonable expectation of success are noted. Although it is agreed that metathesis materials are not specifically mentioned, these references are not specifically directed to a very limited class of resin materials but rather would have been read as more broadly directed to resins that cure using catalysts, the reasonable expectation of success for such a system coming when these teachings are taken in light of the EP '833 reference, as noted in the statement of rejection. The fact that EP '833 is not forming a coating consistent with the present claims is agreed with. However, this reference still provides evidence that a substrate provided catalyst can suitably and effectively catalyze the metathesis reaction.

It is also urged that there is nothing in the applied references alone or together "to provide a reasonable expectation of the demonstrated unexpected improved coating adhesion". It is agreed that although the secondary references would suggest pre - applying the catalyst to the surface, this is principally for processing type reasons or advantages - there is no suggestion that would expect an improved coating adhesion. At issue then is the provided 1.132 declaration and whether it is sufficient to overcome what is considered a prima facie case.

With respect to the 1.132 declaration in particular, part 1 of the declaration has been considered but makes no comparisons to the present invention and thus is of relatively little value in assessing whether unexpected results are achieved. Part 2 of the declaration has been also considered and further would seem to demonstrate what would appear to be a significant and unexpected improvement in adhesion using the claimed method as compared to a premix method with essentially the same constituents. However, insofar as this test was limited to only a *single* type of substrate and a *single* metathesis polymerization system whereas the claims are inclusive of almost any substrate and any metathesis polymerization monomers/catalysts (including even entirely different reaction mechanisms, e.g. other than ROMP), it is not considered that the results are at present commensurate with the scope of the claimed invention. In particular, results either must be shown that are commensurate with the scope of the claims or it must be shown or argued why the presented results (or any future results), even though of limited scope in terms of variety of substrates and polymer systems, would nonetheless be such as to allow the artisan to reasonably extend the probative

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value thereof. No such results and/or explanation has been provided here - note also MPEP 716.02, esp. 716.02(d). It is noted that applicant also refers to several examples in the specification to demonstrate superior adhesion. Insofar as these results do not make any comparison to what is considered the closest prior art, namely application of premixed metathesis monomer/catalyst, they are of relatively little value in assessing whether the claimed invention provides an unexpected adhesion improvement. In fact, Table 13 arguably supports the position that the results cannot necessarily be extrapolated from one substrate to others, this showing a wide variation in adhesion values for different substrates (although this again is not comparing adhesion to the prior art method).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 703-308-2062. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


Geoffrey L. Knable
Primary Examiner
Art Unit 1733

G. Knable
May 17, 2003